

Microbiology Lab.
Hand washing / Hygiene
2nd Year - Medicine

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ILOs

- Laboratory safety
- Microscopy use
- To show how proper hand washing is essential to prevent infections
- Learn the proper use of sanitizers and proper hand washing
- Show that germs may be present even if they are not seen
- Learn some principles of healthcare associated infections and infection prevention and control

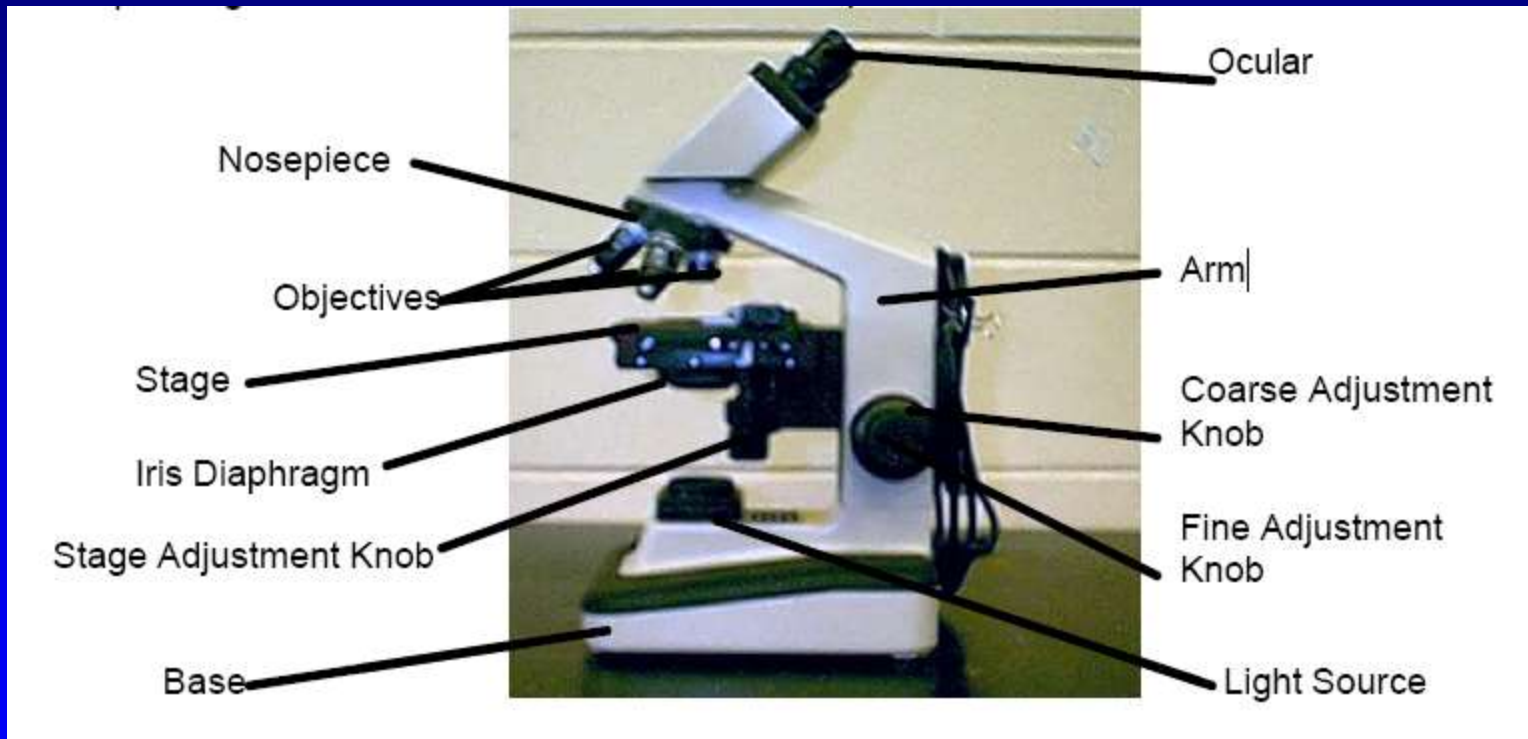
Safety

- 1. All materials and clothes other than those needed for the laboratory are to be kept away from the work area.
- 2. A lab coat or other protective clothing must be worn during lab. The lab clothing is not to be worn outside of the laboratory.
- 3. Clean the lab table before and after lab with the disinfectant solution provided.
- 4. Wash hands before leaving lab.
- 5. Any item contaminated with bacteria or body fluids must be disposed of properly. Disposable items are to be placed in the BIOHAZARD container. Reusable items are to be placed in the designated area for autoclaving prior to cleaning. Sharps are to be disposed of in the appropriate container.

- 6. Reusable items should have all tape and marks removed by the student before being autoclaved.
- 7. Because organisms used in this class are potentially pathogenic, aseptic technique must be observed at all times. NO eating, drinking, application of cosmetics or smoking is allowed. Mouth pipetting is not allowed.
- 8. Cuts and scratches must be covered with Band-Aids. Disposable gloves will be provided on request.
- 9. Long hair should be tied back while in lab.
- 10. All accidents, cuts, and any damaged glassware or equipment should be reported to the lab instructor immediately.
- 11. Sterilization techniques will involve the use of Bunsen flames that are fire and burn hazards. Keep all combustibles away from the flames. Do not leave inoculating loops or needles propped in the flame.

- 12. Microscopes and other instruments are to be cared for as directed by the instructor.
- 13. It is the responsibility of the student to know the location and use of all safety equipment in the lab (eyewash, fire extinguisher, etc.)
- 14. Cultures may not be removed from the lab. Visitors are not allowed in the lab.
- 15. Doors and windows are to be kept closed at all times.
- 16. For the best lab experience, read labs before coming to class. Make notes as necessary. Wait for a laboratory introduction by the instructor before starting work.

Microscope



Hand washing

□ Types of bacteria on hands

- Normal flora
- Transient bacteria

Microbial spread and transmission

- Touch your eyes, nose, and mouth with unwashed hands
- Prepare or eat food and drinks with unwashed hands
- Touch a contaminated surface or objects
- Blow your nose, cough, or sneeze into hands and then touch nose eyes..or other people's hands or common objects

- Washing hands can keep you healthy and prevent the spread of many infections such as respiratory and diarrheal infections from one person to the next.



Hand washing- When

- **Socially:** for example
- If your hands are obviously dirty
- Before eating or handling food
- After using the toilet
- After changing nappies
- If you are a patient / visitor and have diarrhoea and/or vomiting, coughs or influenza (flu)

Medically



1 BEFORE PATIENT CONTACT	WHEN? Clean your hands before touching a patient when approaching him or her WHY? To protect the patient against harmful germs carried on your hands
2 BEFORE AN ASEPTIC TASK	WHEN? Clean your hands immediately before any aseptic task WHY? To protect the patient against harmful germs, including the patient's own germs, entering his or her body
3 AFTER BODY FLUID EXPOSURE RISK	WHEN? Clean your hands immediately after an exposure risk to body fluids (and after glove removal) WHY? To protect yourself and the health-care environment from harmful patient germs
4 AFTER PATIENT CONTACT	WHEN? Clean your hands after touching a patient and his or her immediate surroundings when leaving WHY? To protect yourself and the health-care environment from harmful patient germs

Hand washing - How

- A good hand washing technique involves wetting the hands under running water before applying liquid soap.
- The hands should be rubbed together for 15 – 20 seconds so that the soapy water comes into contact with all surfaces of each hand, (See figure).
- It is important to wash under any rings and it is advisable to remove wristwatches before washing.
- Hands should be rinsed thoroughly and then dried with paper towels.

Hand washing - steps



1
Wet hands
with water



2
Apply enough soap
to cover all
hand surfaces



3
Rub hands palm
to palm



4
Rub back of each hand
with palm of other hand
with fingers interlaced



5
Rub palm to palm with
fingers interlaced



6
Rub with back of fingers
to opposing palms with
fingers interlocked



7
Rub each thumb clasped
in opposite hand using a
rotational movement



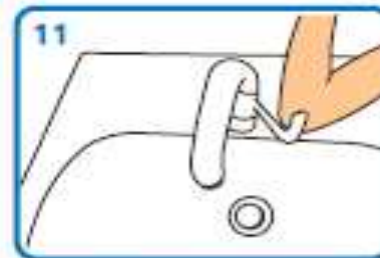
8
Rub tips of fingers in
opposite palm in a
circular motion



9
Rub each wrist with
opposite hand



10
Rinse hands
with water



11
Use elbow to
turn off tap



12
Dry thoroughly with
a single-use towel

Hand washing - steps

1. Wet your hands with water.



2. Apply enough soap to cover your hands.



3. Rub your hands together



4. Use 1 hand to rub the back of the other hand and clean in between the fingers. Do the same with the other hand.



5. Rub your hands together and clean in between your fingers.



6. Rub the back of your fingers against your palms.



7. Rub your thumb using your other hand. Do the same with the other thumb.



8. Rub the tips of your fingers on the palm of your other hand. Do the same with other hand.



9. Rinse your hands with water.



10. Dry your hands completely with a disposable towel.



11. Use the disposable towel to turn off the tap. OR Use elbow or..But don't touch



practical



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Before Handwashing



After Handwashing



The End